

Problems and Challenges of Digitalization for University Staff. The Case of the University of Tirana

MAJLINDA KETA¹, VALENTINA SINAJ²

¹Faculty of Social Sciences,
University of Tirana,
ALBANIA

²Faculty of Economy,
University of Tirana,
ALBANIA

Abstract: - During this dynamic period, digital technology is being rapidly applied in education, enabling innovative methods for the development of the university institution, teaching, knowledge assessment, institutional communication, and communication between educators, administrative staff, and students, as well as serving as an international ranking standard. In this regard, the University of Tirana has initiated the digital transformation process, which was deeply understood and significantly accelerated during the COVID-19 pandemic. It is going on in conformity with the growth and increase of investments closely connected with continuous technological developments side by side with the investments for the qualification of human resources, which serve and benefit this professional community as well as the improvement in the fields of Law and Administration based on the standards of digital ethics. Being the biggest university community in Albania, it has become a necessity to build a survival, friendly welcoming, just safe, and life-sustaining digital community. This is the key to solving the educational and administrative problems facing students, and academic and administrative staff. Besides being a vision for the University's development, it is an ethical vision as well. Moreover, it stands as an ethical challenge. This work based on the data from the study "Digital Ethics, Humane and Institutional Agora and the University of Tirana" aims at exploring the impact of age on digital ethics, both for the academic and support staff at the University of Tirana, with a special focus on staff aged 45 and above. Data from a survey conducted in the November-December 2022 period have been used, involving 315 educators out of a total of 746 and 214 support staff out of 334 to achieve at least 95% reliability. The data was based on half-structured interviews focusing on groups composed of university academic and administrative staff. Descriptive and inferential analyses using the chi-square test for independence have been used to determine whether age influences the following, for academic and administrative staff: 1. accurate knowledge of digital ethics, 2. responsible use of digital tools, 3. trust in UT in using and preserving information for students and academic staff, 4. security issues, and 5. efforts to enhance awareness of keeping pace with the time in the university environment. This work aims to address the issues that have arisen to take specific measures by the responsible authorities to increase knowledge about digital ethics at all levels, actors, and factors, within UT.

Key-Words: - digital ethics, age, higher education, digitalization, academic staff, administrative staff, Chi-Square.

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1 Introduction

"Faster, Better, Cheaper but on Ethical Principles" would be the motto we need to use to explain at times the process we have been involved in institutionally, which aims at digitalization as a standard of university life. Technology is a field that many people rely on to offer the vision of a brighter future. Recent developments in the field of Information and Communication Technology,

initiated in the late 20th century and intensified during the first two decades of this century, are accompanying the growth and becoming an integral part of human society's maturation. The world is characterized by numerous and rapid changes, some of which have come from the rapid development of information and communication technology. Education must adapt to the continuous changes in technology and extensively utilize them

in the teaching process and “supporting digital transformation in education and training”.

The education has accelerated its mission and objectives towards such a process. Hence, Education 3.0 highly elaborated during the second decade of this millennium claimed that the use of new technology, has raised the quality of knowledge and enabled students. The revolution of digital technology touched sensitively the old traditional approaches of pedagogy and inner qualifications. If we refer to the understanding of University 3.0 we could claim that the University of Tirana has powerfully continued strengthening digitalization as a university for itself at the service of many functions and different communities. Above all, it should manage the solutions to the worries coming from the process and it ought to optimize its interest towards another vision, that of University 4.0; the Universities of the Future (UOF) in the epoch of 4.0 industries.

The National Strategy for Education (NSE) 2021–2026, which included for the first time higher education, after Law 80/2015, has expressed the objective towards digital transformation in education. Albania is an active member of the EU’s Erasmus+ and Horizon 2000 programs and based on them, more and more academic staff are involved in research mobility programs and capacity-building projects, including those on the transformation brought about by the digitalization process.

The Government of Albania’s key policy to promote education for all is the National Strategy for Education (NSE) 2021–2026, [1]. In terms of integration with the EU, the NSE 2021–2026 is fully coherent with the strategic objectives of the ‘framework for European cooperation in education and training towards the European Education Area and beyond (2021–2030), [1] which promotes the National Strategy for Education (NSE) 2021–2026, which included for the first time the higher education, after the Law 80/2015. Albania is an active member of the EU’s Erasmus+ and Horizon 2000 programs and based on them more and more academic staff are involved in research mobility programs and capacity-building projects. The Government of Albania’s key policy to promote education for all is the National Strategy for Education (NSE) 2021–2026, [1]. In terms of integration with the EU, the NSE 2021–2026 is fully coherent with the strategic objectives of the ‘framework for European cooperation in education and training towards the European Education Area and beyond (2021–2030), [1] which promotes

“supporting digital transformation in education and training as well”.

Education must respond rapidly to these changes, with rapid internal and qualitative developments to transmit systematic, coherent, and sustainable knowledge and skills to students, reflecting these in society to create a more positive future for all. In the face of the greatest challenge of the century, technology, the University of Tirana is also facing it and progressing. Digital communication and interaction are now understood as a necessity not only in our daily lives but mainly in our professional lives. The question arises: Are there rules for how this communication will be conducted? To guide students, educators, support staff, and even the public following and evaluating the university, we have identified three aspects of online professional life: a. understanding being online, b. online rights and responsibilities, and c. our online mental well-being. Through these, institutionally, we exercise and promote fundamental principles of democracy, human rights, and the rule of law in the University context. These principles also apply and contribute to our human relationships in the digital environment, whether personal or professional, as individuals or as communities produced by them. Professional communities, such as universities, cannot function today without ethical standardization, a process that guides and facilitates differences among individuals in university communities, whether academic or administrative.

Digital ethics can be defined as the integration of digital technology and human values in such a way that digital technology advances human values rather than harm them. Therefore, it must include the formulation and justification of policies for the ethical use of digital technology and carefully considered, transparent, and justified actions that lead to digital technology products and services that are ethically acceptable, [2], [3], [4].

The University of Tirana is the first higher education and research institution in Albania, with a history of 66 years, offering a wide range of bachelor's, master's, and doctoral programs. The university contributes to the development of Albanian society and beyond through three pillars of public higher education: research, education, and public service, which continuously enrich and support one another in quality.

The Faculty of Social Sciences of the UT represented by a team of researchers from the Department of Philosophy and Psychology the first top contributors to the study carried out on Ethics in the Albanian system of education in April 2017 prepared by

the Albanian Center for Economic Research (ACER) and supported by the foundation "Mary Ward Loreto". The Department of Philosophy at this Faculty has included digital Ethics in its curriculum and manages the scientific Master "Ethics in Institutions and leadership", which focuses on problems even on a national scale. At the same time, it is the organizer of the Global Day of Ethics, when the focus becomes critical thinking, academic studies, and debates related to ethical principles and how they help institutional processes and digitalization. This is the profile of the Department of Philosophy; the experience of teaching online during COVID-19, which determined the necessity for such a study aiming at a contribution to Ethics in the process of digitalization and the international ranking of our university. But now it has a new profile, that of an interdisciplinary team of researchers in cooperation with the Department of Informatics and Applied Statistics of the Faculty of Economics, the Department of Informatics and Statistics in the Faculty of Natural Sciences of the UT.

Even though the University of Tirana has incorporated and adapted to almost all of its structures technology and digital communication, little has been spoken, and even less has been standardized, about how and by what rules or guidelines, written or unwritten, this communication will be successfully and transparently conducted. In many studies and publications on digital communication and interaction, terms such as digital services, digital skills, digital competence, digital infrastructure, digital library, digital curriculum, etc., are often mentioned, but the term digital ethics is rarely encountered, even though it is of paramount importance and should be addressed first. Research indicates that the only publication that deals with digital communication education is a publication by the Council of Europe titled 'Manual for Digital Citizenship Education' [5], which is not primarily focused on digital ethics but mainly on protecting children from the rapid development of technology.

Institutional digital ethics, the achieved quality, ethical auditing on it, legal regulation, and measuring human resource perceptions in the institutional community are still unexplored research areas. For all the reasons mentioned above, the University of Tirana has challenged itself to win and develop a project supported by the National Agency for Research and Innovation. This project is an added value not only for our institution but for the entire academic community in Albania, government leadership structures, and society as a whole. This is because digital ethics involves ethical online behaviors and interactions based on the ability to understand and appreciate the feelings and perspectives of others.

2 Literature Review

Nowadays, technological development in every field is leading to the computerization of all work processes, starting from state institutions, private institutions, and every other existing enterprise. This has come as a result of the goal to simplify the process of providing services by the above-mentioned respective actors. Also, many companies cooperating for certain purposes are forced to unify the cooperation process and the other party, even if it has not incorporated a certain service in specific platforms, is forced because the nature of the work between them requires it. If we focus on the development of the academic field in technology, nowadays, its actors, mainly professors know how to use technology in their daily lives because they are part of a society that relies heavily on technology, and understanding and using it has become necessary for life today, [6]. Ongoing we can say that ICT (Information Communication Technology) is being incorporated nowadays in academic institutions at a high speed, and it has brought a significant change in the way of teaching. The advantages that ICT has, have been studied and mentioned in various literature where the focus is the simplification of the process of information absorption for both professors and students, [7], pointed the positive effects that ICT has in the academic field, thus mentioning: the increase in the will of professors to develop their knowledge through the modern tools that ICT offers, the easier access to lessons as well as the relevant literature, the change in the methodologies of teaching by professors and developing them professionally, etc. On the other hand, [8], stated that professors have a normal way of thinking about using technology by making it difficult to include it in their lessons, which stops universities from making new changes and improvements. Also, [9], asserted that "the key to the successful integration of ICT in education is the teaching staff; therefore it is very important to investigate the factors directly related to their attitude". The latter in his study revealed that age is one of the influencing factors in the adaptation of ICT in the work process of professors of a university presenting a significant difference between the age of participants and their attitude towards ICT, [9]. In [7], also stated significant differences between the integration of ICT by professors based on age where it was found that young teachers tend to use new technologies more for teaching purposes than older professors. We have other studies, such as [10], that show the opposite results of the significant correlation mentioned above. In this paper [4], it was

hypothesized that there would be a correlation between university teachers' age and ICT use where younger teachers would be more likely to use ICT for educational and personal purposes. The results showed that there is no correlation between the age of professors and the use of ICT, such as online video lectures, online resources, communication tools, etc.

In addition to the relationship that older-age professors should have with technology, they should also recognize and respect digital ethics. Digital ethics itself is about how we choose to use information online, focusing on the moral limits of digitization. In [11], stated that all the actors involved in education must follow ethical rules for educational programs to work in the right direction. This study highlighted the importance that digital ethics has for the faculty and student environment, [11]. In [3], the author emphasizes the importance of education and awareness about digital ethics. It also focuses on understanding the tools needed to follow the agreed-upon rules. In [12], presented some proposals, i.e. valid premises to regulate all the factors that influence the irrelevant use of digital technologies such as training for the responsible and ethical use of technologies for all members of society: suggesting the use of technologies in a responsible way, not just used carelessly, and also it should not be left only in everyone's conscience, but there should also be a commitment by giving examples how to use technologies better.

So, the main idea is that it is not only important to learn how to use technology tools but also to be responsible for how we use a certain tool without violating a digital code of ethics. In the case of our study, university professors should not only learn ICT tools and their incorporation in the work process but also the ethics to follow while working with it.

3 Research Methodology

This study aims to analyze the effect of age on how the academic and administrative staff of the University of Tirana respond to issues of digital ethics. For this purpose, data from the survey of the project "University Ethics, Digitalization, and Institutional and Human Agora" have been used. This survey includes academic and administrative staff from all UT structures, which are independent institutions from each other and have different perspectives and strategies regarding the treatment of ethical issues, but they represent an age group of 45+.

4 Population and Sample

The study population, in terms of full-time academic staff, refers to the full-time academic staff of the Faculty of Economics, Faculty of Foreign Languages, Faculty of History and Philology, Faculty of Natural Sciences, Faculty of Social Sciences, Faculty of Law, and the Institute of European Studies, totaling 746 individuals, of which 315 (42.2%) properly responded to the questionnaire. Meanwhile, the population, in terms of support staff and administrative staff at UT, totals 334 individuals, of which 214 (64%) properly responded to the questionnaire. The sample was based on formulas suggested by [13], to achieve a confidence level of at least 95%, and it was a stratified sampling that aimed at including all age groups in the study, [14].

Instruments of the Study

To collect data for this study, a questionnaire was used. Data collection was carried out by sending the questionnaire link via email and through the website created for this project, [15], during the months of November-December 2022.

5 Research Questions

RQ1: Are there statistically significant differences in digital ethics issues among academic staff at UT based on age?

RQ2: Are there statistically significant differences in digital ethics issues among administrative staff at UT based on age?

6 Data Analysis

Both descriptive and inferential statistical analyses were used for this study. The Chi-square test of independence was predominantly utilized. The hypothesis posed is that reactions to digital ethics issues are independent of age groups. To test the hypothesis, the p-value of the Chi-square test is used. If the p-value is less than the significance level of 5%, then the null hypothesis is rejected, indicating that age groups influence reactions to digital ethics issues.

Demographic information, such as age and gender, is also collected in the questionnaires. At UT, 29% of the administrative staff and 49% of academic staff are over 46 years old, while only 3% of the administrative staff and 7% of the academic staff are over 60 years old. Furthermore, 67% of administrative staff and 63% of academic staff are females (Table 1).

Table 1. Demographic profile of the respondents

Age	Administrative Staff		Academic staff	
	N	%	N	%
18 - 25 years	9	4%	3	1%
26 - 35 years	53	25%	43	14%
36 - 45 years	90	42%	114	36%
46 - 60 years	55	26%	132	42%
over 60 years	7	3%	23	7%
female	144	67%	198	63%
male	70	33%	115	37%

Source: Author's calculation

6.1 Analysis of Results on the Use of Technology

Regarding the level of technology usage at UT, the specific question asked was "How much do you use technology in your work?" with possible answers on a 5-point Likert scale: don't use, little, somewhat, many, very much. The analysis revealed that the level of technology usage at UT is high. The following table presents the reports of the level of technology usage for academic and administrative staff:

The integration of digital technologies and their acceptance, as indicated by [14], [16], [17], depends on various factors such as the culture of change, the perception of educators, teaching styles, and attitudes towards technology, [18]. At UT, technology has been embraced at very satisfactory levels due to the university's internationalization initiatives, [19] and participation in international projects with a focus on ICT.

Among academic staff at UT, 49.1% are over 45 years old, of which 3.5% use technology "very much" and 24.7% use it "many times" (see Table 2), As for administrative staff over 45 years old, which make up 29% of the total, 14% use technology "many times," and only 0.5% use it "very much." At UT, the academic staff are proficient technology users, and the staff members aged over 45 are also proficient technology users. The period of the COVID-19 pandemic had a significant impact in this regard, as teaching at the University of Tirana was conducted entirely online for over a year, using various platforms. According to the questionnaire results, the most commonly used platforms were email, with 28.4% usage among administrative staff, and Microsoft Teams, with 36.8% usage among academic staff. Teams [20], were offered by the university as a preferred communication tool, and it continues to be used at UT for communication between educators and students.

Table 2. Use of technology

Academic staff	little	many	Somewhat	very much	Total
18 - 25 y		1.0%			1.0%
26 - 35 y		8.6%	1.9%	3.2%	13.7%
36 - 45 y	0.3%	24.4%	7.3%	4.1%	36.2%
46 - 60y	1.3%	20.6%	17.1%	2.9%	41.9%
over 60 y	0.3%	4.1%	2.2%	0.6%	7.3%
Total	1.9%	58.7%	28.6%	10.8%	100.0%

Administrative staff	many	don't use	somewhat	very much
18 - 25 y	2.3%			1.9%
26 - 35 y	13.6%		6.5%	3.7%
36 - 45 y	26.6%		10.7%	3.3%
46 - 60y	13.1%		9.3%	0.5%
over 60 y	0.9%	0.9%	0.9%	
Total	56.5%	0.9%	27.6%	9.3%

Source: Author's calculation

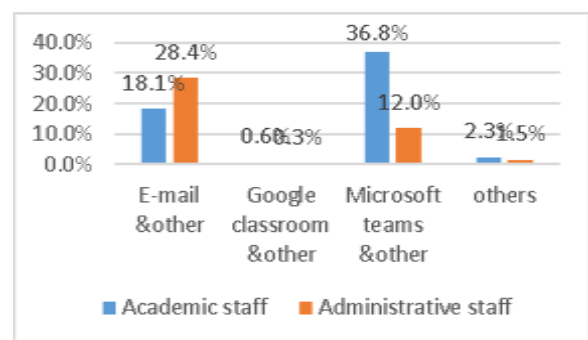


Fig. 1: Platforms used

Source: Author's calculation

Regarding administrative staff, the figures are not very favorable, with approximately 27% of them using technology minimally (see Fig 1). The highest percentage belongs to the age group of 36-45 years. For this reason, training programs have been implemented at UT to enhance their capabilities. On the other hand, [21], found in their study that one obstacle to technology use is the lack of personal digital devices.

6.2 Analysis of Results on Recognition of Digital Ethics

Regarding where they have learned about technology usage, for administrative staff at UT, the highest percentage is self-directed learning at 23.4%, followed by learning through employment at 18.7%, and training at the university at 11.2%. As for academic staff at UT, they have mainly followed a self-directed approach to learning about the use of electronic platforms, with 26.3% reporting self-directed learning.

It is essential to provide training and support to staff members, especially those who are less familiar with technology, to ensure that they can effectively utilize digital tools and platforms in their work.

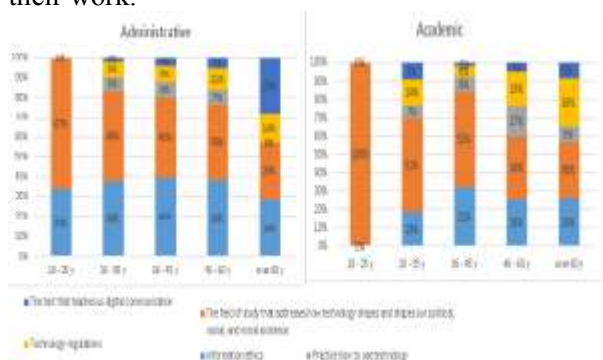


Fig. 2: Knowledge of digital ethics
 Source: Author's calculation

For academic staff, the younger age group (26-45 years old) tends to be better informed about digital standards, with approximately half of them knowing. In contrast, those above 45 years old have an average knowledge level of around 32%. For the administrative staff, knowledge levels are relatively consistent across age groups (Figure 2). The age group of 26-45 years old has a knowledge level of around 40%, while those above 45 years old have an average knowledge level of approximately 34%. At UT, initiatives have been taken to continuously train the administrative staff about ICT. As for the academic staff, a policy of involving them in national and international research projects is followed to increase the quality of teaching and research, for a good integration of UT in the European research area, [22].

6.3 Analysis of Trust in Digital Standards at UT

A set of questions was directed to gauge staff perception regarding sensitive issues related to the protection of personal data of students and staff generated through the use of digital platforms during recent years. For this group of questions,

which was grouped as a single factor, staff members share similar attitudes. We identify their stance toward data preservation, protection, and security for employees and students by assessing their ratings on a 4-point Likert scale: "very much," "sufficiently," "little trust" or "no trust at all."

Table 3. Faith in UT

Category		Age				
		18 - 25 y	26 - 35 y	36 - 45 y	46 - 60 y	over 60 y
Academic staff	not prepared	0.30%	1.00%	2.20%	3.50%	0.60%
	little prepared		3.20%	8.30%	9.80%	0.60%
	much prepared	0.30%	3.20%	8.30%	14.30%	1.60%
	Sufficient	0.30%	6.30%	17.50%	14.00%	4.40%
	total	1.00%	13.70%	36.20%	41.90%	7.30%
Administrative staff	not prepared		1.40%	1.90%	2.30%	0.90%
	little prepared	0.90%	4.70%	8.90%	5.60%	0.90%
	much prepared	1.40%	8.90%	12.10%	5.60%	
	Sufficient	1.90%	9.80%	19.20%	12.10%	1.40%
	total	4.20%	24.80%	42.10%	25.70%	3.30%

Source: Author's calculation

For academic staff (Table 3), 27% believe there is a "very strong impact," with approximately 16% of them being above 45 years old. 19% believe that there is a "relatively strong impact." Only 10% think there is a "low impact." For administrative staff, 28% believe that there is a "very strong impact," with only 5.6% of them being above 45 years old. At UT, the storage of personal data is carried out based on the specific laws and regulations: "On the protection, processing, safety, and security of personal data at the University of Tirana".

6.4 Analysis of the Impact of Digital Ethics on Institutional Culture

A set of questions was aimed at gauging staff perception regarding the extent to which digital ethics influence various issues related to the impact on institutional culture and the quality of knowledge. These variables were grouped as a single factor, and we identified their stance on the impact of ethics on institutional culture. The questions were answered using a 4-point Likert scale: "no impact," "low impact," "relatively strong impact," and "very strong impact."

Table 4. The impact on the culture of the institution

Category		18 - 25 years	26 - 35 years	36 - 45 years	46 - 60 years	over 60 years
Academic staff	No impact		0.30 %	2.50%	4.80%	0.30 %
	Low impact		2.50 %	3.80%	8.30%	1.60 %
	Relatively strong impact	0.30%	5.10 %	19.40 %	16.20 %	2.50 %
	Very strong impact	0.60%	5.70 %	10.50 %	12.70 %	2.90 %
	Total	1.00%	13.70 %	36.20 %	41.90 %	7.30 %
Administrative Staff	No impact	0.50%	1.40 %	3.70%	1.90%	
	Low impact		2.80 %	7.90%	5.60%	0.50 %
	Relatively strong impact	2.80%	8.40 %	16.40 %	10.30 %	0.50 %
	Very strong impact	0.90%	12.10 %	14.00 %	7.90%	2.30 %
	Total	4.20%	24.80 %	42.10 %	25.70 %	3.30 %

Source: Author's calculation

43.5% of the academic staff believe that it has a relatively strong impact, of which 18.7% are over 45 years old, while 32.4% believe that it has a very strong impact, with the majority being 15.6% over 45 years old (Table 4).

As for the administrative staff, 38.3% believe that it has a relatively strong impact, of which 10.8% are over 45 years old, while 37.4% believe that it has a very strong impact, with 10.2% being over 45 years old. Regarding no impact, the highest percentage of academic staff belongs to the age group 46-60 years old with 4.8%, while for administrative staff, it belongs to the age group 36-45 with 3.7%.

7 The Analysis of the Research Questions

For statistical testing, the Chi-Square, [16], [23] test and t-test, [24], will be used. In all cases, it is judged by the value of p. If the p-value of the relevant statistic is lower than the 5% significance level, then the null hypothesis will be rejected.

The Table 5 in the appendix shows the "Decision tree." Referring to the p-value in the first stage ($p=0$, chi-square=28), we conclude that academic and administrative staff have different representations regarding age groups. Thus, more academic staff belongs to the age group 46-60, confirming that UT is a university with qualified academic staff, while 42.1% of administrative staff

belongs to the age group 36-45. Academic staff, based on age groups, have different attitudes towards technology use according to the p-value in the second stage ($p=0$, chi-square=23). Of these, 41.4% use technology many or very much, with the 36-45 age group dominating at 41.1%, followed by the 46-60 age group at 33.8%. If we analyze the age group over 45, we have 40.6% using technology or very much. Regarding Node 4, 18.1% use "little" or "somewhat," with the 46-60 age group standing out at 60.4%. From these results, we see two poles of academic staff over 45 who are either good users or indifferent to IT, using it little, chi-square=21), we conclude that academic staff, according to age groups, have different attitudes towards the definition of digital ethics. Better-informed in this case are academic staff in the 36-45 age group. Meanwhile, academic staff over 45 have accurate knowledge at a rate of approximately 32%, a figure that was expected to be even higher given their qualifications.

8 Conclusions

At the University of Tirana, academic staff holds different views on digital ethics issues depending on the age groups they belong to. Academic staff over 45 are divided into two groups. Part of them are proficient technology users and have a good understanding of digital ethics concepts. On the other hand, some educators are not proficient technology users and lack knowledge of digital ethics concepts. Meanwhile, administrative staff show fewer differences in age-related views on these issues, likely due to the training these staff members have received at the University, especially following the online experience during the pandemic. Both academic and administrative staff have sufficient confidence in the secure handling of electronic data stored and transmitted through electronic platforms managed and administered by the relevant structures at the University.

Academic staff, over 45 years old, have higher levels of knowledge and ethical behavior in digital matters compared to their respective administrative counterparts. Academic staff primarily use Microsoft Teams as their preferred platform, while administrative staff prefer email. Academic staff have primarily self-learned these platforms. Administrative staff over 45 years old are not proficient technology users, whereas academic staff are proficient technology users.

The impact of digital ethics on the quality of knowledge, institutional transparency, and

institutional culture is relatively high according to the perceptions of both administrative and academic staff. However, the academic staff over 45 years old have more confidence in this institutional culture than the administrative staff.

Based on current trends, academic and administrative staff have expressed their opinions on the training needed at the University. Areas related to digital ethics in which they want to gain more knowledge include technologies, security, protection against cyberattacks, familiarity with electronic platforms used at the University and in education more broadly, the governance of data generated by digital interactions, and the role of information technology in digital ethics.

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Conflict of Interest

The authors have no conflicts of interest to declare.

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APPENDIX

Table 5. Decision tree

